

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

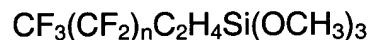
1-8. (cancelled)

9. (new) A method of manufacturing an ink jet head having a nozzle member, on a surface of which a water repellent thin film has been formed, said method comprising the steps of:

(a) applying, onto said surface of said nozzle member, a coat liquid in which a methoxysilane or ethoxysilane compound which is a precursor of silicon oxide and an ethoxysilane or methoxysilane compound which contains therein a carbon fluoride chain are dissolved; and

(b) drying said nozzle member;

wherein said compound which contains a carbon fluoride chain is of the general formula



wherein n is from 1 to 15.

10. (new) A method according to Claim 9, wherein said applying step comprises the substeps of:

(i) applying, onto said surface of said nozzle member, a first coat liquid in which a methoxysilane or ethoxysilane compound which is a precursor of silicon oxide is dissolved; and

(ii) applying, onto said nozzle member surface coated with said first coat liquid, prior to drying of said first coat liquid, a second coat liquid in which a methoxysilane or ethoxysilane compound which is a precursor of silicon oxide and an ethoxysilane or methoxysilane compound which contains therein a carbon fluoride chain are dissolved.

11. (new) A method according to Claim 9, wherein n is from 4 to 15.

12. (new) A method according to Claim 11, wherein n is 7.

13. (new) A method according to Claim 9, additionally comprising the step, after said drying step, of forming a nozzle orifice in said nozzle member by electrical discharge machining.

14. (new) An ink jet head comprising a nozzle member, on a surface of which a water repellent thin film has been formed, wherein said film comprises a compound of the formula $CF_3(CF_2)_nC_2H_4Si(OCH_3)_3$, where n is from 1 to 15, dispersed in silicon oxide.

15. (new) An ink jet head according to Claim 14, wherein n is from 4 to 15.

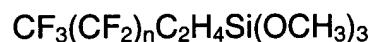
16. (new) An ink jet head according to Claim 15, wherein n is 7.

17. (new) An ink jet head according to Claim 14, wherein said film has a thickness of from 10 nm to 1000 nm.

18. (new) An ink jet head according to Claim 14, wherein the density of said fluoroalkyl chain-containing molecule at the interface of said film and said nozzle member is less than the density of said molecule at the upper surface of said film.

19. (new) An ink jet head comprising a nozzle member, on a surface of which a water repellent thin film has been formed, wherein said film comprises a molecule in which fluoroalkyl chains are bonded to or dispersed in silicon oxide, and wherein the density of said fluoroalkyl chain-containing molecule at the interface of said film and said nozzle member is less than the density of said molecule at the upper surface of said film.

20. (new) An ink jet head according to Claim 19, wherein said fluoroalkyl chains are of the general formula



wherein n is from 1 to 15.

21. (new) An ink jet head according to Claim 20, wherein n is from 4 to 15.

22. (new) An ink jet head according to Claim 21, wherein n is 7.

23. (new) An ink jet head according to Claim 19, wherein said film has a thickness of from 10 nm to 1000 nm.

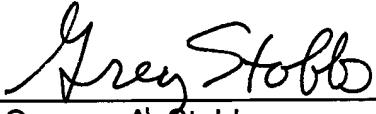
CONCLUSION

Prompt and favorable consideration of this amendment is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Aug 1, 2003

By: 

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